

U.S. Department of Energy
Office of River Protection
Mr. R. J. Schepens
Manager
P.O. Box 450, MSIN H6-60
Richland, Washington 99352

CCN: 048813

Dear Mr. Schepens:

**CONTRACT NO. DE-AC27-01RV14136 – TRANSMITTAL FOR INFORMATION –
AUTHORIZATION BASIS CHANGE NOTICES 24590-WTP-ABCN-ENS-02-021,
REVISION 0, 24590-WTP-ABCN-ENS-02-033, REVISION 0, 24590-WTP-ABCN-ENS-02-
043, REVISION 0, AND THE INTEGRATED SAFETY MANAGEMENT PLAN,
REVISION 2B**

Bechtel National, Inc. (BNI) is submitting the three Authorization Basis Change Notices (ABCNs), as well as Revision 2b of the Integrated Safety Management Plan (ISMP), to the U.S. Department of Energy, Office of River Protection and the Safety Regulation Division (OSR), for information (attached). The contractor-approved ABCNs listed below are a result of the Hanford Tank Waste Treatment and Immobilization Plant project's design evolution, project organization changes, and authorization basis documentation changes:

(Note that the affected authorization basis documents are identified in the parenthesis.)

- 24590-WTP-ABCN-ENS-02-021, Revision 0, *Proposed Change to ISMP Section 3.9.2, ALARA Design* (ISMP, 24590-WTP-ISMP-ESH-01-001, Revision 2b) – This change to Section 3.9.2 allows flexibility, if necessary, in the ALARA design practice on a case-by-case basis. For those design cases where the leakage from non-contaminated side to contaminated side of a service system is not feasible or technically possible, compensatory measures would be applied to provide engineering design features to address monitoring and control of potential spread of contamination.
- 24590-WTP-ABCN-ENS-02-033, Revision 0, *Radioactive Liquid Waste Disposal (RLD) System AB Compliance* (PSAR Volume IV, 24590-WTP-PSAR-ESH-01-001-04, Revision 0, 24590-WTP-PSAR-ESH-01-002-04, Revision 0, and ISMP, 24590-WTP-ISMP-ESH-01-001, Revision 2b) – This ABCN brings the authorization basis and the current design of the HLW Radioactive Liquid Waste Disposal (RLD) System into alignment.

24590-WTP-ABCN-ENS-02-043, Revision 0, *ISMP Section 11.1 Revision to Deputy Project Manager and Manager of Engineering Roles and Responsibilities* (ISMP, 24590-WTP-ISMP-ESH-01-001, Revision 2b) – This ABCN updates radiological, nuclear, and process safety roles, responsibilities, and authorities in ISMP Section 11.1 to reflect Project organizational changes.

Also provided for your information is Revision 2b of the ISMP, which incorporates the contractor-approved changes in these three ABCNs. Electronic copies of the attached ABCNs and ISMP, Revision 2b, are provided for the OSR's information and use.

Please contact Mr. Bill Spezialetti at 371-5778 for any questions or comments.

Very truly yours,

R. F. Naventi
Project Director

TR/slr

Attachment: 1) Authorization Basis Change Notice 24590-WTP-ABCN-ENS-02-021, Revision 0
2) Authorization Basis Change Notice 24590-WTP-ABCN-ENS-02-033, Revision 0
3) Authorization Basis Change Notice 24590-WTP-ABCN-ENS-02-043, Revision 0
4) Integrated Safety Management Plan, Revision 2b

cc: Name (ALPHABETIZE)	Organization	MSIN
Barr, R. C. w/a (1 hard copy and 1 electronic copy)	OSR	H6-60
Barrett, M. K. w/o	ORP	H6-60
Beranek, F. w/o	WTP	MS6-P1
Betts, J. P. w/o	WTP	MS14-3C
Dickey, R. L. w/a	WTP	MS6-R1
DOE Correspondence Control w/a	ORP	H6-60
Ensign, K. R. w/o	ORP	H6-60
Erickson, L. w/o	ORP	H6-60
Grindel, M. R. w/a	WTP	MS7-FSE
Gibson, K. D. w/a	WTP	MS6-R1
Hamel, W. F. w/o	ORP	H6-60
Hanson, A. J. w/o	ORP	H6-60
Klein, D. A. w/o	WTP	MS6-P1
Krahn, D. E. w/a	WTP	MS6-R1
Naventi, R. F. w/o	WTP	MS14-3C
PDC w/a	WTP	MS5-K.1
QA Project Files w/a	WTP	MS14-4B
Ryan, T. B. w/a	WTP	MS6-R1
Spezialetti, W. R. w/o	WTP	MS6-P1
Taylor, W. J. w/a	ORP	H6-60
Veirup, A. R. w/o	WTP	MS14-3B



Authorization Basis Change Notice

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ABCN Number 24590-WTP-ABCN-ENS-02-021 Revision 0

ABCN Title Proposed Change to ISMP Section 3.9.2, "ALARA Design"

II. Description of the Proposed Change to the Authorization Basis

D. Affected Authorization Basis and Implementing Documents (drawings, procedures, plans, etc):

Title	Document Number	Revision
Integrated Safety Management Plan	24590-WTP-ISMP-ESH-01-001	1

E. Describe the proposed changes to the Authorization Basis documents. Include specific references to the AB documents and design documents that are to be changed:

This proposed change is to the following statement in the Integrated Safety Management Plan (ISMP) Section 3.9.2:

"The interfaces between non-radioactive service systems (e.g., cooling water) and radioactive systems are designed so that any leakage is from the clean side to the radioactive side of the interface."

This statement in the ISMP is proposed to be expanded as follows:

"The interfaces between non-radioactive service systems (e.g., cooling water) and radioactive systems are designed so that any leakage is from the clean side to the radioactive side of the interface. In those cases, where this ALARA design practice is not technically feasible, engineering design features are furnished to ensure alternate contamination control provisions are incorporated."

F. Explain why the change is needed:

This change to ISMP Section 3.9.2 would allow flexibility, if necessary, in the ALARA design practice on a case-by-case basis. For those design cases where the leakage from non-contaminated side to contaminated side of a service system is not feasible or technically possible, compensatory measures would be applied to provide engineering design features to address monitoring and control of potential spread of contamination.

An example of this type of situation was encountered with the Pretreatment Facility Feed Evaporator Process (FEP) and Treated LAW Process (TLP) evaporator systems. The non-conformance with ISMP Section 3.9.2 involves the FEP and TLP evaporator reboilers: the reboiler shell steam side has to be at a relatively lower pressure to avoid boiling and hence plugging of the process fluid in the reboiler tubes. The evaporators are forced recirculation types with high flow rates and the pressure on the discharge the recirculation pump results in a higher pressure on the process (tube) side than the steam (shell) side of the reboiler with the potential problem of contaminating the condensate stream if a tube should fail. Mechanisms are in place (gamma monitoring, steam condensate water (SCW) system configuration) and additional measures are proposed to detect a failed tube and respond appropriately to retain potential condensate contamination within the Black / Hot Cells.



Authorization Basis Change Notice

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ABCN Number 24590-WTP-ABCN-ENS-02-021 Revision 0

ABCN Title Proposed Change to ISMP Section 3.9.2, "ALARA Design"

F. Explain why the change is needed:

Alternatives such as higher temperature operation with increased downtime for cleaning or high pressure hot water rather than steam in the reboiler may be possible but are significantly different from the base-line design and carry additional cost and process risk implications.

Because this ISMP Section 3.9.2-specific statement cannot be met in all design cases (as in this example of the evaporator reboiler leakage from a radioactive high pressure process fluid side to a non-radioactive low pressure steam condensate side), the additional statement is proposed to be added to address these situations.

This would allow flexibility in the ALARA design practice on a case-by-case basis. For those design cases where the leakage from non-contaminated side to contaminated side is not possible, consideration would be given to provide engineering design features to address monitoring and control of potential spread of contamination.

III. Summary of Safety Evaluation

- G. DOE approval of this AB change is not required because the Safety Evaluation has determined that the change meets all the criteria for Contractor approval of the change.

Summarize the results of the Safety Evaluation by checking the statements below for Administrative Control changes OR Facility changes, not both. Add clarifying remarks, as necessary, to provide complete and accurate information.

Safety Evaluation No. 24590-WTP-SE-ENS-02-018 Rev 0

☒ For an Administrative Control:

This administrative control change does not affect the SRD. The change falls beneath the level of detail described in the Code of Federal Regulations applicable to the project (10 CFR 820, 10 CFR 830, and 10 CFR 835). The change conforms to the requirements in the top-level safety standards (e.g., DOE/RL-96-0006). The change provides adequate safety because the applicable questions on the Safety Evaluation have been answered in a way that ensures adequate safety following the change. The change conforms to contract requirements and will not result in inconsistencies with other AB or authorization agreement commitments or descriptions.

Remarks:

See the associated Safety Evaluation (24590-WTP-SE-ENS-02-018) for specific discussion on the evaluation of the proposed change to the ISMP. The Safety Evaluation concluded that the proposed ISMP change continues to meet the DOE/RL-96-0006 expectation 4.2.3.2 "Radiation Protection Features".



Authorization Basis Change Notice

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ABCN Number 24590-WTP-ABCN-ENS-02-021 Revision 0

ABCN Title Proposed Change to ISMP Section 3.9.2, "ALARA Design"



For a Facility Control:

This facility change does not affect the SRD. The change does not create a new DBE or increase the frequency or consequence of an analyzed DBE. The change does not result in a decrease in the safety function of an ITS SSC or change how an SDC SSC meets its respective safety function. The change falls beneath the level of detail described in the Code of Federal Regulations applicable to the project (10 CFR 820, 10 CFR 830, and 10 CFR 835). The change conforms to the requirements in the top-level safety standards (e.g., DOE/RL-96-0006). The change provides adequate safety because the applicable questions on the Safety Evaluation have been answered in a way that ensures adequate safety following the change. The change conforms to contract requirements and will not result in inconsistencies with other AB or authorization agreement commitments or descriptions.

Remarks:

H. Attachments (if any):

NONE



Authorization Basis Change Notice

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ABCN Number 24590-WTP-ABCN-ENS-02-033 Revision 0

ABCN Title Radioactive Liquid Waste Disposal (RLD) System AB Compliance

WTP Project Director Ron Naventi
Print/Type Name *Signature* *Date*

II. Description of the Proposed Change to the Authorization Basis

D. Affected Authorization Basis and Implementing Documents (drawings, procedures, plans, etc):

Title	Document Number	Revision
Preliminary Safety Analysis Report to Support Partial Construction; HLW Facility Specific Information	24590-WTP-PSAR-ESH-01-001-04	0
Preliminary Safety Analysis Report to Support Construction Authorization; HLW Facility Specific Information	24590-WTP-PSAR-ESH-01-002-04	0
Integrated Safety Management Plan	24590-WTP-ISMP-ESH-01-001	2
P&ID – HLW RADIOACTIVE LIQUID WASTE DISPOSAL SYSTEM ACTIVE EFFLUENT COLLECTION	24590-HLW-M6-RLD-00001	0
P&ID – HLW RADIOACTIVE LIQUID WASTE DISPOSAL SYSTEM PLANT WASH & DRAINS VESSEL	24590-HLW-M6-RLD-00002	0
P&ID – HLW RADIOACTIVE LIQUID WASTE DISPOSAL SYSTEM OFF GAS DRAINS COLLECTION VESSEL	24590-HLW-M6-RLD-00014	0

E. Describe the proposed changes to the Authorization Basis documents. Include specific references to the AB documents and design documents that are to be changed:

The proposed changes to the AB documents are listed below.

24590-WTP-PSAR-ESH-01-001-04, Rev. 0, Preliminary Safety Analysis Report to Support Partial Construction; HLW Facility Specific Information.

Section 2.3, 3rd paragraph, 2nd sentence: Revise from “The wet process cell will contain two concentrate receipt vessels, the acidic waste vessel, the plant wash and drain vessel, the decontamination effluent collection vessel, and the offgas drains collection vessel.” to “The wet process cell will contain two concentrate receipt vessels, the acidic waste vessel, the plant wash and drain vessel, and the offgas drains collection vessel.”

Section 2.4.11.1.2: Revise “Acidic Waste Vessel (V35002)” to “Acidic Waste Vessel (RLD-VSL-00007)”

Section 2.4.11.1.2, 2nd paragraph, 1st sentence: Revise “The acidic waste vessel has a maximum volume of approximately 13,000 gal.” to “The acidic waste vessel has a maximum volume of approximately 16,000 gal.”

Section 2.4.11.1.2; 2nd paragraph: Revise 2nd bulleted item from “Pressure , level, density, and temperature measurement” to “Pressure , level, and temperature measurement”.

Section 2.4.11.1.3: Revise “Plant Wash and Drains Vessel (V35003)” to “Plant Wash and Drains Vessel (RLD-



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ABCN Number 24590-WTP-ABCN-ENS-02-033 Revision 0

ABCN Title Radioactive Liquid Waste Disposal (RLD) System AB Compliance

E. Describe the proposed changes to the Authorization Basis documents. Include specific references to the AB documents and design documents that are to be changed:

VSL-00008)”

Section 2.4.11.1.3, 1st paragraph, 4th sentence: Revise “The vessels have a maximum volume of approximately 9,600 gal.” to “The vessel has a maximum volume of approximately 11,000 gal.”.

Section 2.4.11.1.3; 2nd paragraph: Revise 2nd bulleted item from “Pressure , level, density, and temperature measurement” to “Pressure , level, and temperature measurement”.

Section 2.4.11.1.4: Delete the entire section. The Decontamination Effluent Collection Vessel has been deleted per 24590-HLW-DCA-PR-02-010, Rev. 0.

Section 2.4.11.1.5: Revise “Offgas Drains Collection Vessel (V35038)” to “Offgas Drains Collection Vessel (RLD-VSL-00002)”

Section 2.4.11.1.5, 1st paragraph, 2nd sentence: Revise “This vessel is constructed of stainless steel and has a maximum capacity of 150 gallons.” to “This vessel is constructed of stainless steel and has a maximum capacity of approximately 300 gallons.”

Section 2.4.11.1.5; 1st paragraph: Revise 1st bulleted item from “Pressure , temperature, level, density, and temperature measurement” to “Pressure , level, and temperature measurement”.

Section 3.4.2.1.1, 2nd paragraph: Revise “The are six SC-III vessels that potentially contain radionuclides.” to “There are five SC-III vessels that potentially contain radionuclides.”

Section 3.4.2.1.1, 1st bulleted item: Delete “Decon Effluent Collection Vessel (V35009)”

Section 3.4.2.1.1, 2nd bulleted item: Revise “Offgas Drains Collection Vessel (V35038)” to “Offgas Drains Collection Vessel (RLD-VSL-00002)”

Table 3-1: Revise column header from “HLW Acidic Waste V35002 12,100 gal” to “HLW Acidic Waste (RLD-VSL-00007) 14,485 gal”. The isotopic activity values in this column needs to be revised based on calculation input.

Table 3-1:Delete entire column with column header “HLW Decon Effluent V35009 5,177 gal”

Table 3-1: Revise column header from “Plant Wash and Drains V35003 8887 gal” to “Plant Wash and Drains Vessel (RLD-VSL-00008) 9,429 gal”. The isotopic activity values in this column need to be revised based on calculation input.

Table 3-1: Revise column header from “Off Gas Drains Collection V35038 150 gal” to “Off Gas Drains Collection (RLD-VSL-00002) 228 gal”. The isotopic activity values in this column need to be revised based on calculation input.

Table 3-11: Revise “Acidic Waste Vessel (V35002) SC-II (two over one issue with V31001/V31002)” to “Acidic Waste Vessel (RLD-VSL-00007) SC-II (two over one issue with HCP-VSL-00001/HCP-VSL-00002)”.

Table 3-11: Delete “Decon Effluent Collection Vessel (V35009) SC-III” from the Table.

Table 3-11: Revise “Plant Wash and Drains Vessel (V35003)” to Plant Wash and Drains Vessel (RLD-VSL-00008)”.

Table 3-11: Revise “Offgas Drains Collection Vessel (V35038)” to “Offgas Drains Collection Vessel (RLD-VSL-00002)”.

Table 3-12: Delete e entire row from Table for vessel V35009.

Table 3-12: Revise “V35038” to “RLD-VSL-00002”.



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ABCN Number 24590-WTP-ABCN-ENS-02-033 Revision 0

ABCN Title Radioactive Liquid Waste Disposal (RLD) System AB Compliance

E. Describe the proposed changes to the Authorization Basis documents. Include specific references to the AB documents and design documents that are to be changed:

Appendix C, Table 1-2: Revise “Acidic Waste Vessel (V35002) SC-II (two over one issue with V31001/V31002)” to “Acidic Waste Vessel (RLD-VSL-00007) SC-II (two over one issue with HCP-VSL-00001/HCP-VSL-00002)”.

Appendix C, Table 1-2: Delete “Decon Effluent Collection Vessel (V35009) SC-III” from the table.

Appendix C, Table 1-2: Revise “Plant Wash and Drains Vessel (V35003)” to Plant Wash and Drains Vessel (RLD-VSL-00008)”.

Appendix C, Table 1-2: Revise “Offgas Drains Collection Vessel (V35038)” to “Offgas Drains Collection Vessel (RLD-VSL-00002)”.

Figure 2-1 needs to be revised to show deletion of decon effluents collection vessel and equipment numbering changes.

Figure 2-2, Section C-C needs to be revised to show deletion of decon effluents collection vessel.

Figure 2-5, Section K-K needs to be revised to show deletion of decon effluents collection vessel.

Figure 2-6 needs to be revised to show deletion of decon effluents collection vessel.

24590-WTP-PSAR-ESH-01-002-04, Rev. 0, Preliminary Safety Analysis Report to Support Construction Authorization; HLW Facility Specific Information.

Section 2.3, 3rd paragraph, 2nd sentence: Revise from “The wet process cell will contain two concentrate receipt vessels, the acidic waste vessel, the plant wash and drain vessel, the decontamination effluent collection vessel, and the offgas drains collection vessel.” to “The wet process cell will contain two concentrate receipt vessels, the acidic waste vessel, the plant wash and drain vessel, and the offgas drains collection vessel.”

Section 2.4.11.1.2; 2nd paragraph: Revise 2nd bulleted item from “Pressure , level, density, and temperature measurement” to “Pressure , level, and temperature measurement”.

Section 2.4.11.1.3; 2nd paragraph: Revise 2nd bulleted item from “Pressure , level, density, and temperature measurement” to “Pressure , level, and temperature measurement”.

Section 2.4.11.1.4: Delete the entire section. The Decontamination Effluent Collection Vessel has been deleted per 24590-HLW-DCA-PR-02-010, Rev. 0.

Section 2.4.11.1.5; 1st paragraph: Revise 1st bulleted item from “Pressure, temperature, level, and density measurement” to “Pressure , level, and temperature measurement”.

Section 2.5.5: 2nd paragraph, Revise first sentence from, “The RLD consists of four primary vessels that receive the effluents, located in the wet process cell.” to “ The RLD system consists of three primary vessels that receive the effluents. These vessels are located in the wet process cell.”

Section 2.5.5.1: Delete the entire section. The Decontamination Effluent Collection Vessel has been deleted per 24590-HLW-DCA-PR-02-010, Rev. 0.

Section 2.5.5.4: Revise 3rd paragraph from “If the contents of RLD-VSL-00001 and RLD-VSL-00007 cannot be transferred to PT because lines are unavailable, their contents could be transferred to RLD-VSL-00008.” to “If the contents of RLD-VSL-00007 cannot be transferred to PT because lines are unavailable, the contents could be transferred to RLD-VSL-00008.”

Section 2.5.5.4: Revise 4th paragraph from “Vessels RLD-VSL-00008, RLD-VSL-00001, and RLD-VSL-00002 can overflow to the wet process cell sumps if an overflow occurs.” to “Vessels RLD-VSL-00008 and RLD-VSL-



Authorization Basis Change Notice

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ABCN Number 24590-WTP-ABCN-ENS-02-033

Revision 0

ABCN Title Radioactive Liquid Waste Disposal (RLD) System AB Compliance

E. Describe the proposed changes to the Authorization Basis documents. Include specific references to the AB documents and design documents that are to be changed:

00002 can overflow to the wet process cell sumps if an overflow occurs.”

Section 3.4.1.2.1; 2nd paragraph: Revise second item from “RLD-VSL-00008 Maximum operating volume:9764 gal” to “RLD-VSL-00008 Maximum operating volume: 10,628 gal.”.

Section 3.4.1.7: 2nd paragraph, Delete RLD-VSL-00001 and associated data from the Table. Revise data for RLD-VSL-00007 as needed based on calculation revision due to vessel volume change.

Section 3.4.1.7: 2nd paragraph, Revise associated data for RLD-VSL-00008 in Table as needed based on calculation revision due to vessel volume change.

Section 3.4.1.11.6.1: 2nd paragraph, Revise 5th sentence from, “The north cell contains the offgas drains collection vessel (RLD-VSL-00002) and the decontamination effluent collection vessel (RLD-VSL-00001).” to “The north cell contains the offgas drains collection vessel (RLD-VSL-00002).”

Section 3.4.2.1.1; 2nd paragraph: Revise “Six SC-III vessels potentially contain radionuclides.” to “Five SC-III vessels potentially contain radionuclides.” Delete first bulleted item: “Decontamination effluent collection vessel (RLD-VSL-00001)”

Table 3-1: Revise volume for RLD-VSL-00007 from “12,100 gal” to “14,485 gal”. The isotopic activity values in this column needs to be revised based on calculation input.

Table 3-1: Delete entire column for RLD-VSL-00001. The Decontamination Effluent Collection Vessel has been deleted per 24590-HLW-DCA-PR-02-010, Rev. 0.

Table 3-1: Revise volume for RLD-VSL-00008 from “8,887 gal” to “9,429 gal”. The isotopic activity values in this column need to be revised based on calculation input.

Table 3-1: Revise volume for RLD-VSL-00002 from “150” to “228 gal”. The isotopic activity values in this column need to be revised based on calculation input.

Table 3-10: Revise “Acidic Waste Vessel (V35002) SC-II (two over one issue with V31001/V31002)” to “Acidic Waste Vessel (RLD-VSL-00007) SC-II (two over one issue with HCP-VSL-00001/HCP-VSL-00002)”.

Table 3-10: Delete “Decon Effluent Collection Vessel (V35009) SC-III” from the table. The Decontamination Effluent Collection Vessel has been deleted per 24590-HLW-DCA-PR-02-010, Rev. 0.

Table 3-10: Revise “Plant Wash and Drains Vessel (V35003)” to “Plant Wash and Drains Vessel (RLD-VSL-00008)”.

Table 3-10: Revise “Offgas Drains Collection Vessel (V35038)” to “Offgas Drains Collection Vessel (RLD-VSL-00002)”.

Table 3-11: Delete entire row from Table for vessel V35009.

Table 3-11: Revise “V35038” to “RLD-VSL-00002”.

Table 3-13: Revise table entry no. 11 from “V35002” to “RLD-VSL-00007”.

Table 3-13: Delete item 13 from table. V35009, the Decontamination Effluent Collection Vessel has been deleted per 24590-HLW-DCA-PR-02-010, Rev. 0.

Table 3-13: Revise table entry no. 12 from “V35003” to “RLD-VSL-00008”.

Table 3-14: Revise “V35002 Acidic Wash Vessel” to “RLD-VSL-00007 Acidic Waste Vessel”.

Table 3-14: Delete V35009 from the table. The Decontamination Effluent Collection Vessel has been deleted per 24590-HLW-DCA-PR-02-010, Rev. 0.



Authorization Basis Change Notice

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ABCN Number 24590-WTP-ABCN-ENS-02-033 Revision 0

ABCN Title Radioactive Liquid Waste Disposal (RLD) System AB Compliance

E. Describe the proposed changes to the Authorization Basis documents. Include specific references to the AB documents and design documents that are to be changed:

Table 3-14: Revise "V35003" to "RLD-VSL-00008".

Figure 2A-1 needs to be revised to show deletion of decon effluents collection vessel and equipment numbering changes.

Figure 2A-2 needs to be revised to show deletion of decon effluents collection vessel and equipment numbering changes.

Figure 2A-3 needs to be revised to show deletion of decon effluents collection vessel and equipment numbering changes.

Figure 2A-4 needs to be revised to show equipment numbering changes.

Figure 2A-5 needs to be revised to show equipment numbering changes.

Figure 2A-7 needs to be revised to show deletion of decon effluents collection vessel.

Figure 2A-10, Section K-K needs to be revised to show deletion of decon effluent collection vessel.

Figure 2A-11 needs to be revised to show deletion of decon effluents collection vessel.

Figure 2A-33 needs to be revised to show deletion of density instrument for RLD-VSL-00007.

Figure 2A-33 needs to be revised to show deletion of RLD-BRKPT-00002 and deletion of density instrument for RLD-VSL-00008. Also, delete line coming from RLD-VSL-00001 to RLD-VSL-00008.

Figure 2A-34 needs to be revised to show deletion of decon effluents collection vessel .

Figure 2A-34 needs to be revised to show deletion of density instrument for RLD-VSL-00002.

Figure 3-2 needs to be revised to change "V35002" to "RLD-VSL-00007".

24590-WTP-ISMP-ESH-01-001, Rev. 2, Integrated Safety Management Plan

Table 1-3: Delete HLW Decon Effluent Collection Vessel from table. This vessel has been deleted per design change.

F. Explain why the change is needed:

1. The vessel volumes for RLD-VSL-00002, RLD-VSL-00007, and RLD-VSL-00008 have changed from the volumes listed in the AB documents. The vessel volumes have increased based on process flow requirements and vessel sizing design criteria.
2. The Decontamination Effluent Collection Vessel (RLD-VSL-00001) has been deleted per 24590-HLW-DCA-PR-02-010, Rev 0. This vessel is still shown in sections of the AB documents. The implementing design change determined that the contents of the Waste Neutralization Vessel (HDH-VSL-00003) can be transferred directly to pre-treatment via RLD-BRKPT-00007 and RLD-BRKPT-00009.
3. Density instruments were deleted from RLD vessels but are still shown or described in AB documents. The density instrumentation was removed from RLD-VSL-00007 and RLD-VSL-00008 per 24590-HLW-DCA-PR-02-013, Rev 0. The design change determined that these vessels do not need real time density indication and that the determination of density due to non-routine operations will be accomplished through sample analysis. The density instrument was removed from RLD-VSL-00002 per 24590-HLW-DCN-PR-02-009, Rev 0. The DCN determined that density measurement was not required for monitoring purposes or for determining the solids content of RLD-VSL-00002.
4. Level indicating instruments have changed from bubbler type design to radar type design for RLD-VSL-00007,



Authorization Basis Change Notice

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ABCN Number 24590-WTP-ABCN-ENS-02-033 Revision 0

ABCN Title Radioactive Liquid Waste Disposal (RLD) System AB Compliance

F. Explain why the change is needed:

RLD-VSL-00008, and RLD-VSL-00002 per 24590-HLW-DCN-J-02-001, Rev 0. This change does not affect the authorization basis since the type of level instrumentation is not described in the AB documents. The DCN states that the radar level detection instrumentation is more accurate and more reliable than the bubbler instrumentation. The radar level instruments are used in ITS functions for RLD-VSL-00007 and RLD-VSL-00008 and for non-ITS functions for RLD-VSL-00002.

5. RLD-BRKPT-00002 was deleted per 24590-HLW-DCA-M-02-001, Rev 0 but is still shown in the AB documents. This DCA determined that the breakpot was not needed and that transfer of wash liquids from the Melter Feed Prep Vessel and the Melter Feed Vessel can be routed directly to the Plant Wash & Drains Vessel (RLD-VSL-00008).
6. Portions of the AB documents still reflect the old equipment numbering system. The AB documents need revised to reflect the new equipment numbering system.

III. Summary of Safety Evaluation

- G. DOE approval of this AB change is not required because the Safety Evaluation has determined that the change meets all the criteria for Contractor approval of the change.

Summarize the results of the Safety Evaluation by checking the statements below for Administrative Control changes OR Facility changes, not both. Add clarifying remarks, as necessary, to provide complete and accurate information.

Safety Evaluation No. <u>24590-WTP-SE-ENS-02-041</u>	Rev <u>0</u>
<u>24590-WTP-SE-ENS-02-042</u>	Rev <u>0</u>
<u>24590-WTP-SE-ENS-02-043</u>	Rev <u>0</u>

☐ For an Administrative Control:

This administrative control change does not affect the SRD. The change falls beneath the level of detail described in the Code of Federal Regulations applicable to the project (10 CFR 820, 10 CFR 830, and 10 CFR 835). The change conforms to the requirements in the top-level safety standards (e.g., DOE/RL-96-0006). The change provides adequate safety because the applicable questions on the Safety Evaluation have been answered in a way that ensures adequate safety following the change. The change conforms to contract requirements and will not result in inconsistencies with other AB or authorization agreement commitments or descriptions.

Remarks:



Authorization Basis Change Notice

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ABCN Number 24590-WTP-ABCN-ENS-02-033 Revision 0

ABCN Title Radioactive Liquid Waste Disposal (RLD) System AB Compliance

☒ For a Facility Control:

This facility change does not affect the SRD. The change does not create a new DBE or increase the frequency or consequence of an analyzed DBE. The change does not result in a decrease in the safety function of an ITS SSC or change how an SDC SSC meets its respective safety function. The change falls beneath the level of detail described in the Code of Federal Regulations applicable to the project (10 CFR 820, 10 CFR 830, and 10 CFR 835). The change conforms to the requirements in the top-level safety standards (e.g., DOE/RL-96-0006). The change provides adequate safety because the applicable questions on the Safety Evaluation have been answered in a way that ensures adequate safety following the change. The change conforms to contract requirements and will not result in inconsistencies with other AB or authorization agreement commitments or descriptions.

Remarks:

All changes are within the intent of the AB documents. All changes are consistent with top level standards and do not result in non-conformance of the contract requirements.

H. Attachments (if any):

Authorization Basis Change Notice

ABCN Number 24590-WTP-ABCN-ENS-02-043 Revision 0

ABCN Title	ISMP Section 11.1 Revision to Deputy Project Manager and Manager of Engineering Roles and Responsibilities
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I. ABCN Review and Approval Signatures

A. ABCN Preparation

Preparer: Rodger Dickey

Print/Type Name Signature Date

Reviewer: Ken Gibson _____ _____
Print/Type Name *Signature* *Date*

B. Required Technical Reviewer

Review Required? *For each organization checked, that signature block must be completed.*

<input checked="" type="checkbox"/>	E&NS	Dennis Klein		
		<i>Print/Type Name</i>	<i>Signature</i>	<i>Date</i>

<input checked="" type="checkbox"/>	QA	George Shell		
		<i>Print/Type Name</i>	<i>Signature</i>	<i>Date</i>

<input type="checkbox"/>	AB Document Custodian	N/A		
		<i>Print/Type Name</i>	<i>Signature</i>	<i>Date</i>

<input type="checkbox"/>	Commissioning/Training	N/A		
		<i>Print/Type Name</i>	<i>Signature</i>	<i>Date</i>

<input checked="" type="checkbox"/>	Engineering	Fred Marsh		
		<i>Print/Type Name</i>	<i>Signature</i>	<i>Date</i>

☐ Construction _____
Print/Type Name *Signature* *Date*

☐ Area Project Manager _____
Print/Type Name Signature Date

☐ Project Archives Document Control

☐ Other Affected Organization _____
Print/Type Name *Signature* *Date*

C. ABCN Approval

E&NS Manager	Fred Beranek		
	<i>Print/Type Name</i>	<i>Signature</i>	<i>Date</i>



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ABCN Number 24590-WTP-ABCN-ENS-02-043

Revision 0

ABCN Title ISMP Section 11.1 Revision to Deputy Project Manager and Manager of Engineering Roles and Responsibilities

II. Description of the Proposed Change to the Authorization Basis

D. Affected Authorization Basis and Implementing Documents (drawings, procedures, plans, etc):

Title	Document Number	Revision
Integrated Safety Management Plan (ISMP)	24590-WTP-ISMP-ESH-01-001	2

E. Describe the proposed changes to the Authorization Basis documents. Include specific references to the AB documents and design documents that are to be changed:

The following update is proposed to radiological, nuclear, and process safety roles, responsibilities, and authorities currently provided in ISMP Section 11.1:

- Deletion of the roles, responsibilities, and authorities related to radiological, nuclear, and process safety for the position of Deputy Project Manager.
- Removal of the word “design” from the first sentence under the Manager of Engineering roles, responsibilities, and authorities, such that this sentence will now read “The Manager of Engineering oversees the engineering ~~design~~ activities that are assigned to the DC&C contractor.
- Addition of the following responsibility under the Manager of Engineering:
“16) Overseeing activities related to radiological, nuclear, and process safety and environmental protection”



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Revision 0

ABCN Title ISMP Section 11.1 Revision to Deputy Project Manager and Manager of Engineering Roles and Responsibilities

F. Explain why the change is needed:

The proposed ISMP changes reflect planned revisions in Project organization and management for the Hanford Tank Waste Treatment and Immobilization Plant (WTP) Project. These Project organizational changes include the elimination of the position of Deputy Project Manager and the assignment of radiological, nuclear, and process safety and environmental protection oversight to the Manager of Engineering. The Environmental and Nuclear Safety Manager will retain his current responsibility for overseeing radiological, nuclear, and process safety and environmental protection, but will report to the Manager of Engineering.

The proposed changes to delete “design” from the Manager of Engineering position roles reflect the more general role of this manager to provide oversight of all engineering activities, including how radiological, nuclear, and process safety is integrated into design.

III. Summary of Safety Evaluation

- G. DOE approval of this AB change is not required because the Safety Evaluation has determined that the change meets all the criteria for Contractor approval of the change.

Summarize the results of the Safety Evaluation by checking the statements below for Administrative Control changes OR Facility changes, not both. Add clarifying remarks, as necessary, to provide complete and accurate information.

Safety Evaluation No. 24590-WTP-SE-ENS-02-060

Rev 0

☒ For an Administrative Control:

This administrative control change does not affect the SRD. The change falls beneath the level of detail described in the Code of Federal Regulations applicable to the project (10 CFR 820, 10 CFR 830, and 10 CFR 835). The change conforms to the requirements in the top-level safety standards (e.g., DOE/RL-96-0006). The change provides adequate safety because the applicable questions on the Safety Evaluation have been answered in a way that ensures adequate safety following the change. The change conforms to contract requirements and will not result in inconsistencies with other AB or authorization agreement commitments or descriptions.



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Revision 0

ABCN Title ISMP Section 11.1 Revision to Deputy Project Manager and Manager of Engineering Roles and Responsibilities

Remarks:

These proposed changes to ISMP Section 11.1 do not affect or conflict with the “applicable laws and regulations” (i.e., the 10 CFR Part 830 requirements to identify these responsibilities as part of the Safety Bases definition is still met through the ISMP definition of these responsibilities). The Project approach continues to comply with the DOE top-level principle in RL/REG-96-0003, Item 4.1.2.11.h, for ISMP identification of Project Management and Organization safety-related roles, responsibilities, and authorities.

Also, these proposed changes to the ISMP are consistent with the DOE/RL-96-0006, Item 4.1.2.2 principle that “The assignment and subdivision of responsibility for safety should be kept well defined throughout the life of the facility”

The proposed changes remain safe, as the Deputy Project Manager roles, responsibilities, and authorities related to radiological, nuclear, and process safety are functionally still addressed in the Project Manager roles. The Environmental and Nuclear Safety Manager reporting to the Manager of Engineering will help facilitate integrating radiological, nuclear, and process safety into design.

Lastly, the proposed changes are consistent with the DOE position for ISMP adequacy, as presented in the RL/REG-97-07 Item 6.10.a. which states “Safety definition, implementation, and maintenance roles, responsibilities, and authorities defined in the ISMP are clear and appropriate.” The ISMP update provides this clarity and appropriateness in these redefined roles, responsibilities, and authorities within the proposed changes.



For a Facility Control:

This facility change does not affect the SRD. The change does not create a new DBE or increase the frequency or consequence of an analyzed DBE. The change does not result in a decrease in the safety function of an ITS SSC or change how an SDC SSC meets its respective safety function. The change falls beneath the level of detail described in the Code of Federal Regulations applicable to the project (10 CFR 820, 10 CFR 830, and 10 CFR 835). The change conforms to the requirements in the top-level safety standards (e.g., DOE/RL-96-0006). The change provides adequate safety because the applicable questions on the Safety Evaluation have been answered in a way that ensures adequate safety following the change. The change conforms to contract requirements and will not result in inconsistencies with other AB or authorization agreement commitments or descriptions.

Remarks:

N/A

H. Attachments (if any):

None